CLAIMS

1. A method of manufacturing a glass substrate for a data recording medium, the method comprising:

housing disk-shaped glass workpieces in circular holes formed in a tabular carrier, with said carrier having a surface roughness of 0.08 μm or less; and

polishing principal surfaces of the glass workpieces by sliding a polishing pad over said carrier and glass workpieces, until the principal surfaces of the glass workpieces have micro-waviness of 0.12 nm or below measured using a three-dimensional surface structure analysis microscope whose measuring wavelength is set to 0.2 to 1.4 mm.

2. The method of manufacturing a glass substrate for a data recording medium according to claim 1, wherein said carrier is subjected to surface polishing before being used in the polishing.

3. The method of manufacturing a glass substrate for a data recording medium according to claim 1, wherein the surface roughness of said polishing pad is 6 μm or less when measured using a probe sensor whose cutoff value is set to 0.8 mm.

4. The method of manufacturing a glass substrate for a data recording medium according to claim 1, wherein said polishing pad is made of foam of a synthetic resin material having a 100% modulus of 8.8 to 19.6 MPa.

5. The method of manufacturing a glass substrate for a data recording medium according to claim 4, wherein an amount of compression deformation of said polishing pad is 40 to 60 μm.

6. The method of manufacturing a glass substrate for a data recording medium according to claim 4, wherein said polishing pad has 600 to 800 pores per 1 mm^2 on the surface thereof.

7. The method of manufacturing a glass substrate for a data recording medium according to claim 4, wherein said polishing pad has pores having a diameter of 10 to 40 μm on the surface thereof.

8. The method of manufacturing a glass substrate for a data recording medium according to claim 1, wherein said carrier is made by molding synthetic resin with an aggregate of alamido fiber or glass fiber

9. The method of manufacturing a glass substrate for a data recording medium according to claim 8, wherein said carrier has a Rockwell hardness of 120 to 130.

10. A method of manufacturing a glass substrate for a data recording medium, the method comprising:

forming circular holes in a tabular carrier having a surface roughness of 0.08 μm or less;

housing disk-shaped glass workpieces in the circular holes of the carrier; and

sliding polishing pads over the surface of said carrier and the principal surfaces of the glass workpieces and polishing the glass workpieces until the height of micro-waviness on the principal surfaces measured using a three-dimensional surface structure analysis microscope whose measuring wavelength is set to 0.2 to 1.4 mm is reduced to 0.12 nm or less.

11. The method of manufacturing a glass substrate for a data recording medium according to claim 10, wherein said carrier is subjected to surface polishing before being used in said sliding.

12. The method of manufacturing a glass substrate for a data recording medium according to claim 10, wherein the surface roughness of said polishing pad is 6 μm or less when measured using a probe sensor whose cutoff value is set to 0.8 mm.

13. The method of manufacturing a glass substrate for a data recording medium according to claim 10, wherein said polishing pad is made of foam of a synthetic resin material having a 100% modulus of 8.8 to 19.6 MPa.

14. The method of manufacturing a glass substrate for a data recording medium according to claim 13, wherein an amount of compression deformation of said polishing pad is 40 to 60 μm.

15. The method of manufacturing a glass substrate for a data recording medium according to claim 13, wherein said polishing pad has 600 to 800 pores per 1 mm^2 on the surface thereof.

16. The method of manufacturing a glass substrate for a data recording medium according to claim 13, wherein said polishing pad has pores having a diameter of 10 to 40 μm on the surface thereof.